



SAMPLE Application Form Eleventh Annual New Hampshire Governor's Award For Pollution Prevention

Business: Manufacturers, Commercial Services, Office Buildings

Organization: Environmental, Community, Non-Profit Groups, Institutions (Schools, Hospitals), Public Agencies, Municipalities

Technology: Manufacturers of new P2 technologies need to supply measurement data from businesses that are using your new technology (page 3), also include your own business operation information (pages 5,6).

Business or Organization: [Company A](#)

Contact Name & Title: [Jane Doe, Environmental and Safety Engineer](#)

Street Address: [Main St](#)

City: [Our Town](#) NH Zip: [01234](#) SIC/NAICS: [3625](#)

Telephone: [555-5555](#) Fax: [555-5551](#) Email: jdoe@companyA.com

Website: www.companyA.com Number of Employees at this address: [197](#)

Description of Business or Organization: [Manufactures sensing safety equipment such as safety mats, light curtains, and proximity devices that are used in manufacturing and warehouse applications. Other supporting activities on-site include injection molding, tool and die fabrication, and administrative staff.](#)

Description of Pollution Prevention Project: [Identifying a safer and more environmentally friendly chemistry to utilize in the safety mat manufacturing process. Processing chemistry utilized previously contained large percentages of methyl ethyl ketone \(MEK\) which posed a health safety concern for employees who handled the material and for the facility from a fire hazard aspect. In addition the previous primer material posed an environmental concern as it was the facility's largest air emission. The goal of the project was to find a water based substitute for the primer material.](#)

Applications are due by June 21, 2005.

Applications may be submitted electronically (nhppp@des.state.nh.us) or through the mail.

Please submit completed application and relevant attachments to:

New Hampshire Department of Environmental Services
Pollution Prevention Program, Attn: April Arroyo
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

Please view the **N.H. Governor's Award web page** at www.des.state.nh.us/nhppp/GovAward/ for frequently asked questions, application examples, how winners are selected and other relevant information. The Eleventh Annual Governor's Award for Pollution Prevention winners will be notified in August 2005.

It is important to completely answer all sections of this application that apply to your project. A comparison will be made of all applications received, based upon the information submitted. Should we require any further information, NHPPP will contact you. Please type or print neatly!

Section I. Project Description

Note: "Project" means a specific project, an entire program, or an outreach/education activity. Please be very descriptive of your project!

Project title: [Elimination of MEK from the Safety Mat Manufacturing Process](#)

Project description:

[Evaluate alternate primers used in safety mat process to replace the existing primer P1140B. A key ingredient \(>55% by volume\) of the P1140B is methyl ethyl ketone \(MEK\). The primer is used on the steel "core" sheets to promote proper adhesion of the vinyl plastisol outer layers when it is molded. In order to minimize or eliminate the risks assessed on the P1140B material engineering tests were performed with two different water based primers; Denflex 2393 and WB180. The intent of the project to find a material that posed fewer hazards to the facility, our employees, and to the environment.](#)

[A flowchart of the mat process and an example of one engineering test \(Denflex 2393\) summary has been attached to this submittal.](#)

Why was the project undertaken?

[The MEK containing material was assessed to pose the highest risk present in our facility from both an environmental and safety aspect. The unit in which the material was processed was vented from the facility and the MEK was determined to be the largest air emission generated by the facility. The P1140B Clear MEK primer consisted of several volatile organic solvents including methyl ethyl ketone, methanol, and toluene. All of which posed a safety risk for employees and a fire risk for the facility. By eliminating the P1140B and finding an appropriate water based primer substitute we determined, based on annual usage, that significant air emissions being expelled from the facility would be eliminated.](#)

Project contact (if different):

Section II. Adherence to Pollution Prevention Hierarchy

Describe how the project fits within the P2 hierarchy strategies (eliminate, reduce volume, reduce toxicity, reuse, recycle). Why was this strategy selected over other options?

This project's goal was to eliminate a highly volatile and toxic chemistry from the facility's inventory. A chemical substitution was sought to minimize the potential hazards to our employees who were handling the material and to the surrounding environment to which it was vented. Other P2 strategies were not considered as they would have prolonged the exposure risk and increased the need for handling of the material by the employees.

Section III. Measurement of Success

Include correct unit of measurement in all applicable areas of this section. Manufacturers of P2 technologies, please fill out the following information from businesses that have installed your technology.

Reduction of a Waste or Raw Material

Did this project reduce waste (waste generated or raw materials utilized)? ☒ Yes ☐ No

If yes, please provide past quantity of waste generated/raw materials utilized:

Current quantity of waste generated/raw materials utilized: 560 gallons per year

Quantity of waste/raw materials reduced: 70 gallons per year

Estimated Cost Savings/Year: \$3000 per year

Payback period (real or estimated): 1 year

Reduction in Air Emissions

Did this project reduce air emissions? ☒ Yes ☐ No

If yes, please provide past amount of air emissions generated:

Eliminated the emissions of:

- 2469 lbs of Methyl Ethyl Ketone (CAS 78-93-3)
- 514 lbs of Methanol (CAS 67-56-1)
- 483 lbs of Toluene (CAS 108-88-3)
- 10 lbs of 1,2 – Dichlorobenzene (CAS 95-50-1)
- 26 lbs of Phenol (CAS 108-95-2)

Estimated Cost Savings/Year:

Payback period (real or estimated):

Reduction in Energy Usage

Did this project conserve or save energy? ☒ Yes ☐ No

If yes, please provide past quantity of energy utilized:

Current quantity of energy utilized: Minimal heating of primer material and its ventilation

Quantity of energy saved: 322 kWh/month

Estimated Cost Savings/Year: \$214

Payback period (real or estimated): immediate

Section III. Measurement of Success (continued)**Reduction in Water Usage**

Did this project conserve water? ☐ Yes ☒ No

If yes, please provide past quantity of water utilized:

Current volume of water utilized:

Volume of water conserved as a result of this project:

Estimated Cost Savings/Year:

Payback period (real or estimated):

Reduction in Other Measures

Please describe any other measures used, (i.e. time, labor, energy, raw materials and training, as well as the costs for any raw material and disposal costs).

Cost of having MEK based material pumped out on an annual basis and sending material out as a hazardous waste. A professional company (Clean Harbors) was hired annually that had all necessary safety equipment appropriate ppe (i.e. respirators, suits), and required training

Did these measures result in cost savings? ☒ Yes ☐ No

Estimated Cost Savings/Year (include hidden costs of time, labor, energy, raw materials, and training, as well as any raw material and disposal costs).

The annual cost savings is \$2159.

For Organizations Only:

Please provide any relevant information on turnout for workshops/training/seminars/activities.

Please note any increase in requests for materials on information. (For whom and what type of requests?)

Section IV. Commitment and Leadership in Pollution Prevention

Manufacturers of P2 technologies need to fill out this section with regard to their own business operations.

Explain your management commitment of pollution prevention and overall environmental excellence. Examples include: employee training, incentive programs, awards, planning meetings, a pollution prevention policy, an environmental purchasing policy, or supply chain collaboration.

Management is committed to minimizing the impact of our manufacturing processes on the environment. Management supports the facility's environmental management system and regularly enables employees and staff to participate on teams to audit and improve our practices. Management has committed to supporting a P2 initiative by participating in a program to develop training for pollution prevention for workers in NH. The proposed program sponsored by COES, LLC (Consulting in Occupational and Environmental Sciences – a research consultant for research projects focusing on worker health and safety issues and environmental health) and the NH Small Business Development Center

The intent of training is to reduce the risk potential by having attendees analyze a series of problems and alternatives. The focus will be to consider the use of safer chemical substitutes in making product, demonstrate that inventories of hazardous chemistry can be reduced, and that process changes can lead to a reduction in the potential for environmental releases and/or exposures. Additional benefits will be the assistance in identifying pollution prevention strategies that can be considered based on the facility's production. All levels of facility personnel will participate in the training

Company A, through its participation of this project, hopes to encourage a higher level of pollution prevention activity. Recycling has historically been the most common pollution prevention activity to date and much success has been attained through that avenue. As larger waste streams have been addressed and resolved, a more sophisticated means of P2, such as chemical substitution, must be considered in order to continue making improvements and attaining environmental objectives and targets. The staff of the facility must be educated and versed in the benefits and possible pitfalls of P2 initiatives in order to move the environmental management system forward.

Explain how P2 philosophy has become incorporated into a company-wide philosophy. If available, please attach a copy of your mission statement, policy or vision on pollution prevention.

Company A has made a long term commitment to achieving environmental excellence in all of its facilities world-wide. Annually targets are set at the corporate level and each facility is mandated to incorporate those targets into their own site-specific goals. Progress is monitored on a quarterly basis to ensure that corporate goals will be attained. The annual Environmental, Safety, and Health Report (website: http://www.companyA.com/about_us/env_report/2003/) is utilized to monitor our progress towards achieving those goals.

A brochure has been attached to this email of Company A's commitment to the environment.

Does the facility have an environmental management system ☒ Yes ☐ No

Is your facility ISO 14001 certified ☒ Yes ☐ No

If yes to either of these questions, please explain your reasons for implementation.

An environmental management system provides a methodical, consistent process in which to identify, select, work, and, ultimately, attain environmental improvements. Corporate policy dictates that all Company A facilities attain ISO 14001 certification. Though a corporate mandate, the program provides the environmental program wide support from all levels of personnel. The continuous improvement aspect of the process has enabled us to attain incredible environmental goals without overwhelming local facility resources.

Section V. Benefits to Community

Describe any benefits of this project or program to the community.

Decrease amount of air pollutants expelled from facility into the surrounding environment and community. Decrease the potential for a fire event occurring in the facility that would require the services of the community's emergency responding agencies.

Have community relations improved as a result of this project? ☒ Yes ☐ No

If yes, please describe.

The Our Town Fire Department visits the facility annually to assess fire risks and familiarize themselves with the plant layout. They are very appreciative of the progressive manner in which Company A has decreased the amount of flammable solvents in its inventory and decreased the

sources of potential fires. Over the last two years we have decreased our inventory of flammable inventory by over 3000 lbs through the introduction of water based cleaners and primers.

Have improvements to employees (i.e., improved worker safety, increased production and morale) resulted from this project? ☒ Yes ___ No

If yes please describe.

The flashpoint of the P1140 primer had a flashpoint of 23 °F. It was considered by the on-site safety staff, the Our Town Fire Department, and FM Global (the facility insurer) to be a significant hazard. With the substitution of the water based WB180 primer the fire hazard potential has been significantly diminished.

Section VI. Additional Information

Are the projects, ideas or innovations described in this application transferable to other companies?

Yes, other companies can utilize water based chemistry into their processes if engineering time for research and implementation is provided. Suppliers have become savvier about the desire to run “green” and have increased the number of chemical alternatives for manufacturers to consider.

Please provide, if necessary, any additional information not addressed in this application. You may also attach to this application any hardcopies (i.e. brochures, press releases or web addresses) that you would like included.